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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/030,502

05/14/2002

Olli Salmela

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2169

7590

12/01/2004

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EXAMINER

LEE, BENNY T

ART UNIT

PAPER NUMBER

2817

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES DEPARTMENT OF COMMERCE  
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SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER
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DATE MAILED:

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

☐ This application has been examined ☒ Responsive to communication filed on 16 Sept 2004 ☒ This action is made final.

A shortened statutory period for response to this action is set to expire Three (3) month(s), 23 days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited by Examiner, PTO-892.        | 2. <input type="checkbox"/> Notice of Draftsman's Patent Drawing Review, PTO-948. |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449.             | 4. <input type="checkbox"/> Notice of Informal Patent Application, PTO-152.       |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> _____   |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-31 are pending in the application.

Of the above, claims \_\_\_\_\_ are withdrawn from consideration.

2. ☐ Claims \_\_\_\_\_ have been cancelled.

3. ☒ Claims 3-7, 28-30; 18-24, 2, 9-13, 15; 14; 16; 17; 31 are allowed.

4. ☒ Claims 1; 8; 25 are rejected.

5. ☐ Claims \_\_\_\_\_ are objected to.

6. ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8. ☐ Formal drawings are required in response to this Office action.

9. ☐ The corrected or substitute drawings have been received on \_\_\_\_\_. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).

10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).

11. ☐ The proposed drawing correction, filed \_\_\_\_\_, has been ☐ approved; ☐ disapproved (see explanation).

12. ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.

13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. ☐ Other

EXAMINER'S ACTION

PTOL-326 (Rev. 2/83)

SN 30502

Art Unit: 2817

Claims 1; 8; 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1, 8, 25, note that it is unclear whether reference to the “multilayer ceramic technique” being “Low Temperature Cofired Ceramics (LTCC)” can properly depend from the earlier claim recitation that the “circuit structure” manufactured using the “multilayer ceramic technique” requires that the circuit structure be “completed by exposing the circuit to a high temperature”. Clarification is needed.

The following claims have been found objectionable for reasons set forth below:

In claims 1, 14, 16, 17, 31 in the preamble of each claim: note that the recitation “and a conductive layer of material is silk screen printed on a ceramic layer” should be deleted and the phrase --by silk screen printing-- should be inserted between “forming” & “essentially” to provide the proper characterization of an active method step. Moreover, should the recitation “and the circuit structure is completed by exposing the circuit structure to a high temperature” be moved from it’s location in the preamble to a location in the body of the claim to properly define as the final active step in the manufacturing process? Clarification is needed. In the first step of the process recited in each claim, note that --in said layers of ceramic-- should be inserted between “channels” and “extending” to provide the proper characterization of an active method step.

In claims 1, 31, next to last paragraph in each claim, note that “are defined between” should be rephrased as --do not extend past-- for a proper characterization.

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In claims 2, 14, 15, 16, 17, note that at each occurrence “part” should be deleted as being improper.

In claim 2, line 4; claim 4, line 3; claim 21, line 4: note that --at least-- should precede “one of the ...” for consistency with the earlier recitation.

In claim 3, second paragraph, note that “a core” should be rephrased as --a waveguide core-- to provide antecedent basis for subsequent recitations of “(the/said) waveguide core”.

In claim 7, line 1, note that “made” should be rewritten as --disposed-- for an appropriate apparatus recitation.

In claims 10, 27, note that “one of ... or ...” should be correctly phrased as --one of ... and ...-- for a proper characterization at each instance.

In claims 11, 28, note that “form” should be rewritten as --defines-- for an appropriate apparatus recitation at each occurrence.

In claims 12, 29, note that “comprising” should be rewritten as --including-- for a proper characterization at each occurrence.

In claim 13, line 2, and claim 30, line 1, note that “layers” should properly be --planes-- for consistency with earlier recitations; line 2 of each claim, note that “forming” should be rewritten as --comprising-- for a proper characterization; line 3 of each claim, note that “of the waveguide core” should be rephrased as --on the waveguide core-- for a proper characterization.

Claims 1; 8; 25 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Claims 3-7, ~~26~~30; 18-24, 2, 9-13, 15; 14; 16; 17; 31 are allowable over the prior art of record.

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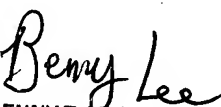
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication should be directed to Benny Lee at telephone number 571 272 1764.

B. Lee

  
BENNY T. LEE  
PRIMARY EXAMINER  
ART UNIT 2817